The Claims

1. (Previously Presented) A method for scheduling development planning for a plurality of products of an enterprise, comprising:

receiving a list of a plurality of products to be developed;

receiving a list of required completion dates, each completion date specifying the completion date for the development of a corresponding product in the plurality of products;

receiving, for each product in the plurality of products, a project definition of a project for developing the product, each project definition defining:

a plurality of tasks required to complete a project for developing the product associated with the project definition; and

a list of resources required to complete each task defined in the product definition, at least one of the plurality of tasks for at least one of the plurality of projects requiring a material to be provided by an outside party distinct from the enterprise;

receiving a list of available resources, each resource in the list of available resources having a capacity as a function of time;

receiving a list of materials available from outside parties distinct from the enterprise and a schedule of availability of the materials available from the outside parties; and

automatically generating a development schedule comprising all tasks for all projects, the development schedule allocating the resources such that each resource is allocated at a level less than or equal to its capacity, the development schedule also scheduling tasks that require materials from outside parties at a time when such materials will be available.

2. (Previously Presented) The method of Claim 1, wherein:

each available resource is assigned an ability level;

each task requiring a resource specifies a minimum ability level of one or more resources to be used for that task; and

the generated development schedule allocates, to all tasks, resources that have an ability level at least as high as the specified minimum ability level.

3. (Previously Presented) A system for scheduling development planning for a plurality of products of an enterprise, comprising:

a list of a plurality of products to be developed;

a list of required completion dates, each completion date specifying the completion date for the development of a corresponding product in the plurality of products;

for each product in the plurality of products, a project definition of a project for developing the product, each project definition defining:

a plurality of tasks required to complete a project for developing the product associated with the project definition; and

a list of resources required to complete each task defined in the product definition, at least one of the plurality of tasks for at least one of the plurality of projects requiring a material to be provided by an outside party distinct from the enterprise;

a list of available resources, each resource in the list of available resources having a capacity as a function of time;

a list of materials available from outside parties distinct from the enterprise and a schedule of availability of the materials available from the outside parties; and

a scheduler operable to automatically generate a development schedule comprising all tasks for all projects, the development schedule allocating the resources such that each resource is allocated at a level less than or equal to its capacity, the development schedule also scheduling tasks that require materials from outside parties at a time when such materials will be available.

4. (Previously Presented) The system of Claim 3, wherein:

each available resource is assigned an ability level;

each task requiring a resource specifies a minimum ability level of one or more resources to be used for that task; and

the generated development schedule allocates, to all tasks, resources that have an ability level at least as high as the specified minimum ability level.

5. (Previously Presented) The method of Claim 1, wherein each task is associated with a task definition comprising at least one of:

type information identifying the type of task;

hierarchy relationship information comprising one or more pointers to one or more related tasks and information regarding a sequence for performing related tasks;

duration information specifying a quantity of time the task will take to complete;

resource information specifying one or more resources to be used and a desired ability; and

progress information specifying progress of the particular task.

6. (Previously Presented) The method of Claim 5, wherein the task definition further comprises scheduling requirements comprising one or more of:

one or more constraints associated with the particular task; and

policy information specifying one or more rules for enforcing the one or more constraints.

7. (Previously Presented) The method of Claim 6, wherein the one or more constraints comprise:

one or more built-in constraints provided by the scheduler; and

one or more user-specified constraints.

8. (Previously Presented) The method of Claim 1, wherein a particular task comprises a plurality of subtasks, a task definition for the particular task specifying the plurality of subtasks and an order in which the plurality of subtasks should be performed.

9. (Previously Presented) The method of Claim 1, wherein the plurality of tasks are defined in a hierarchy specifying relationships among related tasks, at least one task comprising a plurality of sub-tasks, each leaf tasks being associated with an identification of one or more resources for performing the leaf task.

10. (Previously Presented) The method of Claim 1, wherein a particular task in the plurality of tasks comprises a standard tasks for repeated use, the method further comprising storing a task definition for the particular task comprising a list of sub-tasks for performing the particular task and a list of resources for performing the sub-tasks in the list of sub-tasks.

11. (Previously Presented) The method of Claim 1, further comprising:

monitoring the materials identified in the list of materials from outside parties distinct from the enterprise using one or more supply chain tools operable to monitor the outside parties; and

if one or more materials are determined to be unavailable using the one or more supply chain tools, automatically modifying the development schedule based on information obtained by the one or more supply chain tools.

12. (Previously Presented) The method of Claim 1, wherein each available resource in the list of available resources is associated with a resource definition comprising:

the capacity of the resource;

availability of the resource; and

ability of the resource comprising attribute information identifying a type of work associated with the resource and competency information indicating how well the resource performs the type of work identified in the attribute information.

13. (Previously Presented) The method of Claim 1, wherein the list of available resources is defined in a hierarchy specifying relationships among related resources, at least one resource comprising a plurality of sub-resources.

14. (Previously Presented) The method of Claim 1, further comprising:

receiving project status information from a user, the project status information regarding the status of a project in the plurality of projects; and

automatically modifying the development schedule based on the project status information.

15. (Previously Presented) The method of Claim 1, further comprising:

receiving resource status information from a user, the resource status information regarding the status of available resources in the list of available resources; and

automatically modifying the development schedule based on the resource status information.

16. (Previously Presented) The method of Claim 15, wherein the resource status information comprises a change in the capacity of a resource.

17. (Previously Presented) The method of Claim 1, comprising automatically generating the development schedule using a genetic algorithm.

18. (Previously Presented) The system of Claim 3, wherein each task is associated with a task definition comprising at least one of:

type information identifying the type of task;

hierarchy relationship information comprising one or more pointers to one or more related tasks and information regarding a sequence for performing related tasks;

duration information specifying a quantity of time the task will take to complete;

resource information specifying one or more resources to be used and a desired ability; and

progress information specifying progress of the particular task.

19. (Previously Presented) The system of Claim 18, wherein the task definition further comprises scheduling requirements comprising one or more of:

one or more constraints associated with the particular task; and

policy information specifying one or more rules for enforcing the one or more constraints.

20. (Previously Presented) The system of Claim 19, wherein the one or more constraints comprise:

one or more built-in constraints provided by the scheduler; and

one or more user-specified constraints.

21. (Previously Presented) The system of Claim 3, wherein a particular task comprises a plurality of subtasks, a task definition for the particular task specifying the plurality of subtasks and an order in which the plurality of subtasks should be performed.

22. (Previously Presented) The system of Claim 3, wherein the plurality of tasks are defined in a hierarchy specifying relationships among related tasks, at least one task comprising a plurality of sub-tasks, each leaf tasks being associated with an identification of one or more resources for performing the leaf task.

23. (Previously Presented) The system of Claim 3, wherein a particular task in the plurality of tasks comprises a standard tasks for repeated use, the system further operable to store a task definition for the particular task comprising a list of sub-tasks for performing the particular task and a list of resources for performing the sub-tasks in the list of sub-tasks.

24. (Previously Presented) The system of Claim 3, wherein the scheduler is further operable to:

monitor the materials identified in the list of materials from outside parties distinct from the enterprise using one or more supply chain tools operable to monitor the outside parties; and

if one or more materials are determined to be unavailable using the one or more supply chain tools, automatically modify the development schedule based on information obtained by the one or more supply chain tools.

25. (Previously Presented) The system of Claim 3, wherein each available resource in the list of available resources is associated with a resource definition comprising:

the capacity of the resource;

availability of the resource; and

ability of the resource comprising attribute information identifying a type of work associated with the resource and competency information indicating how well the resource performs the type of work identified in the attribute information.

26. (Previously Presented) The system of Claim 3, wherein the list of available resources is defined in a hierarchy specifying relationships among related resources, at least one resource comprising a plurality of sub-resources.

27. (Previously Presented) The system of Claim 3, wherein the scheduler is further operable to:

receive project status information from a user, the project status information regarding the status of a project in the plurality of projects; and

automatically modify the development schedule based on the project status information.

28. (Previously Presented) The system of Claim 3, wherein the scheduler is further operable to:

receive resource status information from a user, the resource status information regarding the status of available resources in the list of available resources; and

automatically modify the development schedule based on the resource status information.

29. (Previously Presented) The system of Claim 28, wherein the resource status information comprises a change in the capacity of a resource.

30. (Previously Presented) The system of Claim 3, wherein the scheduler is operable to automatically generate the development schedule using a genetic algorithm.

31. (Previously Presented) Software for scheduling development planning for a plurality of products of an enterprise, the software being embodied in computer-readable media and when executed operable to:

receive a list of a plurality of products to be developed;

receive a list of required completion dates, each completion date specifying the completion date for the development of a corresponding product in the plurality of products;

receive, for each product in the plurality of products, a project definition of a project for developing the product, each project definition defining:

a plurality of tasks required to complete a project for developing the product associated with the project definition; and

a list of resources required to complete each task defined in the product definition, at least one of the plurality of tasks for at least one of the plurality of projects requiring a material to be provided by an outside party distinct from the enterprise;

receive a list of available resources, each resource in the list of available resources having a capacity as a function of time;

receive a list of materials available from outside parties distinct from the enterprise and a schedule of availability of the materials available from the outside parties; and

automatically generate a development schedule comprising all tasks for all projects, the development schedule allocating the resources such that each resource is allocated at a level less than or equal to its capacity, the development schedule also scheduling tasks that require materials from outside parties at a time when such materials will be available.

32. (Previously Presented) The software of Claim 31, wherein:

each available resource is assigned an ability level;

each task requiring a resource specifies a minimum ability level of one or more resources to be used for that task; and

the generated development schedule allocates, to all tasks, resources that have an ability level at least as high as the specified minimum ability level.

33. (Previously Presented) The software of Claim 31, wherein each task is associated with a task definition comprising at least one of:

type information identifying the type of task;

hierarchy relationship information comprising one or more pointers to one or more related tasks and information regarding a sequence for performing related tasks;

duration information specifying a quantity of time the task will take to complete;

resource information specifying one or more resources to be used and a desired ability; and

progress information specifying progress of the particular task.

34. (Previously Presented) The software of Claim 33, wherein the task definition further comprises scheduling requirements comprising one or more of:

one or more constraints associated with the particular task; and

policy information specifying one or more rules for enforcing the one or more constraints.

35. (Previously Presented) The software of Claim 34, wherein the one or more constraints comprise:

one or more built-in constraints provided by the scheduler; and

one or more user-specified constraints.

36. (Previously Presented) The software of Claim 31, wherein a particular task comprises a plurality of subtasks, a task definition for the particular task specifying the plurality of subtasks and an order in which the plurality of subtasks should be performed.

37. (Previously Presented) The software of Claim 31, wherein the plurality of tasks are defined in a hierarchy specifying relationships among related tasks, at least one task comprising a plurality of sub-tasks, each leaf tasks being associated with an identification of one or more resources for performing the leaf task.

38. (Previously Presented) The software of Claim 31, wherein a particular task in the plurality of tasks comprises a standard tasks for repeated use, the software further operable to store a task definition for the particular task comprising a list of sub-tasks for performing the particular task and a list of resources for performing the sub-tasks in the list of sub-tasks.

39. (Previously Presented) The software of Claim 31, further operable to:

monitor the materials identified in the list of materials from outside parties distinct from the enterprise using one or more supply chain tools operable to monitor the outside parties; and

if one or more materials are determined to be unavailable using the one or more supply chain tools, automatically modify the development schedule based on information obtained by the one or more supply chain tools.

40. (Previously Presented) The software of Claim 31, wherein each available resource in the list of available resources is associated with a resource definition comprising:

the capacity of the resource;

availability of the resource; and

ability of the resource comprising attribute information identifying a type of work associated with the resource and competency information indicating how well the resource performs the type of work identified in the attribute information.

41. (Previously Presented) The software of Claim 31, wherein the list of available resources is defined in a hierarchy specifying relationships among related resources, at least one resource comprising a plurality of sub-resources.

42. (Previously Presented) The software of Claim 31, further operable to:

receive project status information from a user, the project status information regarding the status of a project in the plurality of projects; and

automatically modify the development schedule based on the project status information.

43. (Previously Presented) The software of Claim 31, further operable to:

receive resource status information from a user, the resource status information regarding the status of available resources in the list of available resources; and

automatically modify the development schedule based on the resource status information.

44. (Previously Presented) The software of Claim 43, wherein the resource status information comprises a change in the capacity of a resource.

45. (Previously Presented) The software of Claim 31, operable to automatically generate the development schedule using a genetic algorithm.